

What is claimed is:

### **CLAIMS**

1. A method of providing product consistency comprising the steps of:
  - a) obtaining at least two absorptometry curves, wherein at least one first absorptometry curve is obtained by combining a particulate material with a first liquid in an absorptometer and at least one second absorptometry curve is obtained by combining the particulate material with a second liquid in the absorptometer;
  - b) extracting at least one value from the first absorptometry curve and at least one value from the second absorptometry curve; and
  - c) maintaining the value from the first absorptometry curve within a first target range and maintaining the value from the second absorptometry curve within a second target range for the particulate material.
2. The method of claim 1, wherein the particulate material is carbonaceous.
3. The method of claim 1, wherein the particulate material is carbon black.
4. The method of claim 1, wherein the first liquid and the second liquid are selected from the group consisting of: dibutyl phthalate, paraffin oil, water, ethylene glycol, and mixtures thereof.
5. The method of claim 1, wherein the first absorptometry curve and the second absorptometry curve are obtained by measuring torque versus volume of the liquid added.
6. The method of claim 1, wherein the values extracted from the first absorptometry curve and the second absorptometry curve are selected from the group consisting of: the maximum torque, the volume of liquid at the maximum torque, the volume of liquid at a

percentage of the maximum torque, the volume of liquid at which the absorptometry curve begins to rise, or combinations thereof.

7. The method of claim 1, further comprising the step of adjusting at least one process variable of a process for producing the particulate material, wherein the adjustment maintains the values within the target ranges.

8. The method of claim 7, wherein the process variable is selected from the group consisting of: combustion stoichiometry, reactor quench length, feedstock composition, primary fuel type, level of downstream additives, and post treatment conditions.

9. The method of claim 1, further comprising the step of maintaining at least one morphological value within a morphological target range.

10. The method of claim 1, further comprising the step of maintaining at least one chemical value within a chemical target range.

11. The method of claim 1, wherein the values are determined during the process for producing the particulate material.

12. The method of claim 1, wherein the values are determined prior to shipping the particulate material to a customer.

13. The method of claim 1, wherein the method is a quality control method.

14. The method of claim 1, wherein the values are extracted on a routine basis to insure quality control.

15. The method of claim 1, wherein the method is a quality assurance method.

16. The method of claim 1, wherein the values are extracted on a routine basis to insure quality assurance.
17. A method of providing product consistency comprising the steps of:
  - a) obtaining an absorptometry curve by combining a particulate material with a liquid in an absorptometer;
  - b) extracting at least two different values from the absorptometry curve; and
  - c) maintaining the values within target ranges for the particulate material.
18. The method of claim 17, wherein the particulate material is carbonaceous.
19. The method of claim 17, wherein the particulate material is carbon black.
20. The method of claim 17, wherein the liquid is selected from the group consisting of: dibutyl phthalate, paraffin oil, water, ethylene glycol, and mixtures thereof.
21. The method of claim 17, wherein the absorptometry curve is obtained by measuring torque versus volume of the liquid added.
22. The method of claim 17, wherein the values extracted from the absorptometry curve are selected from the group consisting of: the maximum torque, the volume of liquid at the maximum torque, the volume of liquid at a percentage of the maximum torque, the volume of liquid at which the absorptometry curve begins to rise, or combinations thereof.
23. The method of claim 17, further comprising the step of adjusting at least one process variable of a process for producing the particulate material, wherein the adjustment maintains the values within the target ranges.

24. The method of claim 23, wherein the process variable is selected from the group consisting of: combustion stoichiometry, reactor quench length, feedstock composition, primary fuel type, level of downstream additives, and post treatment conditions.
25. The method of claim 17, further comprising the step of maintaining at least one morphological value within a morphological target range.
26. The method of claim 17, further comprising the step of maintaining at least one chemical value within a chemical target range.
27. The method of claim 17, wherein the values are determined during the process for producing the particulate material.
28. The method of claim 17, wherein the values are determined prior to shipping the particulate material to a customer.
29. The method of claim 17, wherein the method is a quality control method.
30. The method of claim 17, wherein the values are extracted on a routine basis to insure quality control.
31. The method of claim 17, wherein the method is a quality assurance method.
32. The method of claim 17, wherein the values are extracted on a routine basis to insure quality assurance.
33. A method of providing product consistency comprising the steps of:
  - a) obtaining an absorptometry curve by combining a particulate material with a

liquid in an absorptometer;

b) extracting at least one value from the absorptometry curve; and

c) maintaining the value within a target range for the particulate material,

wherein the liquid is not dibutyl phthalate or a hydrocarbon.

34. The method of claim 33, wherein the particulate material is carbonaceous.

35. The method of claim 33, wherein the particulate material is carbon black.

36. The method of claim 33, wherein the liquid is selected from the group consisting of: water, ethylene glycol, and mixtures thereof.

37. The method of claim 33, wherein the absorptometry curve is obtained by measuring torque versus volume of the liquid added.

38. The method of claim 33, wherein the value extracted from the absorptometry curve is selected from the group consisting of: the maximum torque, the volume of liquid at the maximum torque, the volume of liquid at a percentage of the maximum torque, the volume of liquid at which the absorptometry curve begins to rise, or combinations thereof.

39. The method of claim 33, further comprising the step of adjusting at least one process variable of a process for producing the particulate material, wherein the adjustment maintains the value within the target range.

40. The method of claim 39, wherein the process variable is selected from the group consisting of: combustion stoichiometry, reactor quench length, feedstock composition, primary fuel type, level of downstream additives, and post treatment conditions.

41. The method of claim 33, further comprising the step of maintaining at least one morphological value within a morphological target range.
42. The method of claim 33, further comprising the step of maintaining at least one chemical value within a chemical target range.
43. The method of claim 33, wherein the value is determined during the process for producing the particulate material.
44. The method of claim 33, wherein the value is determined prior to shipping the particulate material to a customer.
45. The method of claim 33, wherein the method is a quality control method.
46. The method of claim 33, wherein the value is extracted on a routine basis to insure quality control.
47. The method of claim 33, wherein the method is a quality assurance method.
48. The method of claim 33, wherein the values are extracted on a routine basis to insure quality assurance.
49. A method of providing product consistency comprising the steps of:
  - a) obtaining an absorptometry curve by combining a particulate material with a liquid in an absorptometer;
  - b) extracting at least one value from the absorptometry curve; and
  - c) maintaining the value within a target range for the particulate material,wherein the value is not the characteristic volume.

50. The method of claim 49, wherein the particulate material is carbonaceous.
51. The method of claim 49, wherein the particulate material is carbon black.
52. The method of claim 49, wherein the liquid is selected from the group consisting of: dibutyl phthalate, paraffin oil, water, ethylene glycol, and mixtures thereof.
53. The method of claim 49, wherein the absorptometry curve is obtained by measuring torque versus volume of the liquid added.
54. The method of claim 49, wherein the value extracted from the absorptometry curve is selected from the group consisting of: the maximum torque, the volume of liquid at which the absorptometry curve begins to rise, or combinations thereof.
55. The method of claim 49, further comprising the step of adjusting at least one process variable of a process for producing the particulate material, wherein the adjustment maintains the value within the target range.
56. The method of claim 55, wherein the process variable is selected from the group consisting of: combustion stoichiometry, reactor quench length, feedstock composition, primary fuel type, level of downstream additives, and post treatment conditions.
57. The method of claim 49, further comprising the step of maintaining at least one morphological value within a morphological target range.
58. The method of claim 49, further comprising the step of maintaining at least one chemical value within a chemical target range.
60. The method of claim 49, wherein the value is determined during the process for

producing the particulate material.

61. The method of claim 49, wherein the value is determined prior to shipping the particulate material to a customer.

62. The method of claim 49, wherein the method is a quality control method.

63. The method of claim 49, wherein the value is extracted on a routine basis to insure quality control.

64. The method of claim 49, wherein the method is a quality assurance method.

65. The method of claim 49, wherein the values are extracted on a routine basis to insure quality assurance.

66. A method of providing product consistency comprising the step of:  
maintaining at least one value extracted from at least two absorptometry curves of a particulate material within target ranges, wherein at least one first absorptometry curve is obtained by combining the particulate material with a first liquid in an absorptometer; and wherein at least one second absorptometry curve is obtained by combining the particulate material with a second liquid in an absorptometer.

67. A method of providing product consistency comprising the step of:  
maintaining at least two different values extracted from an absorptometry curve of a particulate material within target ranges, wherein the absorptometry curve is obtained by combining the particulate material with a liquid in an absorptometer.

68. A method of providing product consistency comprising the step of:  
maintaining at least one value extracted from an absorptometry curve of a



particulate material within a target range, wherein the absorptometry curve is obtained by combining the particulate material with a liquid in an absorptometer, and wherein the liquid is not dibutyl phthalate or a hydrocarbon.

69. A method of providing product consistency comprising the step of:  
maintaining at least one value extracted from an absorptometry curve of a particulate material within a target range, wherein the absorptometry curve is obtained by combining the particulate material with a liquid in an absorptometer, and wherein the value is not the characteristic volume.